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☐ 1: O14734. Peroxisomal acyl-...[gi:14285685]

Links

LOCUS PTE1_HUMAN 319 aa linear PRI 15-JUN-2002
 DEFINITION Peroxisomal acyl-coenzyme A thioester hydrolase 1 (Peroxisomal long-chain acyl-coA thioesterase 1) (HIV-Nef associated acyl coA thioesterase) (Thioesterase II) (hTE).
 ACCESSION O14734
 VERSION O14734 GI:14285685
 DBSOURCE swissprot: locus PTE1_HUMAN, accession O14734;
 class: standard.
 extra accessions: O15261, created: Oct 16, 2001.
 sequence updated: Oct 16, 2001.
 annotation updated: Jun 15, 2002.
 xrefs: gi: 2318124, gi: 2318125, gi: 2243145, gi: 2243146, gi: 4680312, gi: 4680313, gi: 13929448, gi: 3191970
 xrefs (non-sequence databases): HSSP P23911, InterPro IPR003703, Pfam PF02551
 KEYWORDS Hydrolase; Serine esterase; Peroxisome.
 SOURCE Homo sapiens.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (residues 1 to 319)
 AUTHORS Watanabe, H., Shiratori, T., Shoji, H., Miyatake, S., Okazaki, Y., Ikuta, K., Sato, T. and Saito, T.
 TITLE A novel acyl-CoA thioesterase enhances its enzymatic activity by direct binding with HIV Nef
 JOURNAL Biochem. Biophys. Res. Commun. 238 (1), 234-239 (1997)
 MEDLINE 97445158
 REMARK SEQUENCE FROM N.A.
 REFERENCE 2 (residues 1 to 319)
 AUTHORS Liu, L.X., Margottin, F., Le Gall, S., Schwartz, O., Selig, L., Benarous, R. and Benichou, S.
 TITLE Binding of HIV-1 Nef to a novel thioesterase enzyme correlates with Nef-mediated CD4 down-regulation
 JOURNAL J. Biol. Chem. 272 (21), 13779-13785 (1997)
 MEDLINE 97298085
 REMARK SEQUENCE FROM N.A.
 TISSUE=Lymphoid
 REFERENCE 3 (residues 1 to 319)
 AUTHORS Jones, J.M., Nau, K., Geraghty, M.T., Erdmann, R. and Gould, S.J.
 TITLE Identification of peroxisomal acyl-CoA thioesterases in yeast and humans
 JOURNAL J. Biol. Chem. 274 (14), 9216-9223 (1999)
 MEDLINE 99194760
 REMARK SEQUENCE FROM N.A.
 TISSUE=Muscle
 REFERENCE 4 (residues 1 to 319)
 AUTHORS Deloukas, P., Matthews, L.H., Ashurst, J., Burton, J., Gilbert, J.G.R., Jones, M., Stavrides, G., Almeida, J.P., Babbage, A.K., Bagguley, C.L., Bailey, J., Barlow, K.F., Bates, K.N., Beard, L.M., Beare, D.M., Beasley, O.P., Bird, C.P., Blakey, S.E., Bridgeman, A.M., Brown, A.J., Buck, D., Burrill, W.D., Butler, A.P., Carder, C., Carter, N.P., Chapman, J.C., Clamp, M., Clark, G., Clark, L.N., Clark, S.Y.,

Clee, C.M., Clegg, S., Cogley, V.E., Collier, R.E., Connor, R.E., Corby, N.R., Coulson, A., Coville, G.J., Deadman, R., Dhami, P.D., Dunn, M., Ellington, A.G., Frankland, J.A., Fraser, A., French, L., Garner, P., Grafham, D.V., Griffiths, C., Griffiths, M.N.D., Gwilliam, R., Hall, R.E., Hammond, S., Harley, J.L., Heath, P.D., Ho, S., Holden, J.L., Howden, P.J., Huckle, E., Hunt, A.R., Hunt, S.E., Jekosch, K., Johnson, C.M., Mullikin, J.C., Kay, M.P., Kimberley, A.M., King, A., Knights, A., Laird, G.K., Lawlor, S., Lehtvaslaiho, M.H., Leversha, M.A., Lloyd, C., Lloyd, D.M., Lovell, J.D., Marsh, V.L., Martin, S.L., McConnachie, L.J., McLay, K., McMurray, A.A., Milne, S.A., Mistry, D., Moore, M.J.F., Mullikin, J.C., Nickerson, T., Oliver, K., Parker, A., Patel, R., Pearce, T.A.V., Peck, A.I., Phillimore, B.J.C.T., Prathalingam, S.R., Plumb, R.W., Ramsay, H., Rice, C.M., Ross, M.T., Scott, C.E., Sehra, H.K., Shownkeen, R., Sims, S., Skuce, C.D., Smith, M.L., Soderlund, C., Steward, C.A., Sulston, J.E., Swann, R.M., Sycamore, N., Taylor, R., Tee, L., Thomas, D.W., Thorpe, A., Tracey, A., Tromans, A.C., Vaudin, M., Wall, M., Wallis, J.M., Whitehead, S.L., Whittaker, P., Willey, D.L., Williams, L., Williams, S.A., Wilming, L., Wray, P.W., Hubbard, T., Durbin, R.M., Bentley, D.R., Beck, S. and Rogers, J.

TITLE The DNA sequence and comparative analysis of human chromosome 20
JOURNAL Nature 414 (6866), 865-871 (2001)
MEDLINE 21638749
REMARK SEQUENCE FROM N.A.
COMMENT

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[FUNCTION] MAY PLAY A ROLE IN FATTY ACID OXIDATION RATHER THAN FORMATION OF FATTY ACIDS. MAY MEDIATE NEF-INDUCED DOWN-REGULATION OF CD4.

[CATALYTIC ACTIVITY] Palmitoyl-CoA + H(2)O = CoA + palmitate.

[SUBUNIT] INTERACTS WITH HIV-1 NEF.

[SUBCELLULAR LOCATION] Peroxisomal.

[SIMILARITY] BELONGS TO THE C/M/P THIOESTER HYDROLASE FAMILY.

FEATURES Location/Qualifiers
source 1..319
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/db_xref="taxon:9606"
gene 1..319
/gene="PTE1"
/note="HNAACTE"
Protein 1..319
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/note="BY SIMILARITY."
Site 232
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/site_type="active"
/note="BY SIMILARITY."
Region 291..293
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/note="LWR -> VWS (IN REF. 2)."
Site 317..319
/gene="PTE1"
/site_type="unclassified"

Region /note="MICROBODY TARGETING SIGNAL (POTENTIAL) ."
319
/gene="PTE1"
/region_name="Conflict"
/note="L -> R (IN REF. 2) ."

ORIGIN

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121 ificqasfqg aqpspmqhgf smptvpppee lldcetlidq ylrdpnlqkr yplalnriaa
181 gevpieikpv npsplsqliqr mepkqmfwwr argyigegdm kmhccvaayi sdyaf1gtal
241 lphqwqhkvh fmvsldhsmw fhapfradhw mlyecespa ggsrglvhgr lwrqdgvlav
301 tcaqegvirv kpqvseskl
```

//

Revised: July 5, 2002.

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CGCTCAGGATGACTTCGCTCTAGGATCGGATCCCCGATATTATATAGCTCGATCGATCT
TTCTCTATATCTCTGCT
TATATAC
TTTCCGATACGTCCT
CACAGACT

Nucleotide

PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	Books
Search		Nucleotide	for			Go	Clear	
Limits		Preview/Index		History		Clipboard		Details
Display	default	Save	Text	Add to Clipboard				

1: R35332. yg65c03.r1 Soares...[gi:792233]

Links

IDENTIFIERS

dbEST Id: 205393
EST name: yg65c03.r1
GenBank Acc: R35332
GenBank gi: 792233
GDB Id: 410808

CLONE INFO

Clone Id: IMAGE:38267 (5')
Insert length: 1325
DNA type: cDNA

PRIMERS

Sequencing: M13RP1
PolyA Tail: Unknown

SEQUENCE

CAGCATTGAACTAGATGTCGTCCCCGAGCCCCAGAAGATGGGCAGGGCTGTGGCGACCG
CGGCGATCCCCCTGGGACCTCCGTAGCGTCTTGGTCACGACCGTGCTCAACCTCGAGCCG
CTGGACGAGGATCTCTTCAGAGGAAGGCATTACTGGGTACCGGCAAGAGGCTGTTTGGT
GGTCAGATCGTGGGCCAGGCCCTGGTGGCTGCAGCAAGTCTGTGAGTNAAGACGTCCACG
TGCACTCCCTGCACTGCTACTTTGTTTCGGGCAGGGGACCCGAAGCTGCCAGTACTGTACC
AAGTGGAGCGGACACGAACAGGGTCGAGCTTCTTCGGTGCCTCTGTGAAGGCCGTGCAA
CATGGGGAAGCCCATTTTCATCTTGCCAGGGCTNCTTCCAGCAGGCCAGCCAGCCCC
ATTGCAGCACCAGT

Quality: High quality sequence stops at base: 327

Entry Created: May 2 1995
Last Updated: May 2 1995

COMMENTS

Insert Size: 1325
High quality sequence stops: 327 Source: IMAGE Consortium,
LLNL This clone is available royalty-free through LLNL ;
contact the IMAGE Consortium (info@image.llnl.gov) for
further information.

PUTATIVE ID Assigned by submitter
SP:TESB_ECOLI P23911 ACYL-COA THIOESTERASE II ;

LIBRARY

Lib Name: Soares infant brain 1NIB
Organism: Homo sapiens
Sex: female
Organ: whole brain
Develop. stage: 73 days post natal
Lab host: DH10B (ampicillin resistant)
Vector: Lafmid BA
R. Site 1: Not I
R. Site 2: Hind III
Description: 1st strand cDNA was primed with a Not I - oligo(dT) primer

[5' AACTGGAAGAATTCGCGGCCGAGGAATTTTTTTTTTTTTTTTTT 3'];
double-stranded cDNA was ligated to Hind III adaptors
(Pharmacia), digested with Not I and directionally cloned
into the Not I and Hind III sites of the Lafmid BA vector.
Library went through one round of normalization. Library
constructed by Bento Soares and M.Fatima Bonaldo.

SUBMITTER

Name: Wilson RK
Institution: Washington University School of Medicine
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Tel: 314 286 1800
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E-mail: est@watson.wustl.edu

CITATIONS

Title: The WashU-Merck EST Project
Authors: Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M.,
Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M.,
Parsons,J., Rifkin,L., Rohlifing,T., Soares,M., Tan,F.,
Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P.,
Wilson,R.
Year: 1995
Status: Unpublished

MAP DATA

Revised: July 5, 2002.

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US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

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L4

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result set

DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

<u>L4</u>	L3 and @RLAD<19980101	100	<u>L4</u>
<u>L3</u>	11 and antibody	151	<u>L3</u>
<u>L2</u>	L1 and peroxisom\$	23	<u>L2</u>
<u>L1</u>	thioesterase	251	<u>L1</u>

END OF SEARCH HISTORY

FILE 'MEDLINE, CAPLUS, EMBASE, BIOSIS' ENTERED AT 14:40:29 ON 06 OCT 2002

L1 347 S EC 3.1.2.2
L2 281 DUP REM L1 (66 DUPLICATES REMOVED)
L3 2313 S THIOESTERASE OR (THIOESTER (1W) HYDROLASE)
L4 11 S L3 AND PTE1
L5 3 DUP REM L4 (8 DUPLICATES REMOVED)
L6 154 S L3 AND PEROXISOM?
L7 59 DUP REM L6 (95 DUPLICATES REMOVED)
L8 9 S L7 AND PY<1998